# **Source Water Assessment Report**



**Public Water Supply: FORT RILEY** 

Assessment Areas Include: 353, 354, 355, 356



Kansas Department of Health and Environment Bureau of Water Watershed Management Section 1000 SW Jackson St., Suite 420 Topeka, KS 66612–1367





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Reports were generated with the Automated Source Water Assessment Tool (ASWAT). Assessments were completed online using ASWAT by hundreds of state employees, public water supply staff, and technical assistant providers throughout the State of Kansas.

# **Table Of Contents**

Report Description	
Assessment Area 353	<u>1.0</u>
Executive Summary	<u>1.1</u>
Potential Sources	<u>1.2</u>
Added Sources	<u>1.3</u>
Potential Contaminants Summary	<u>1.4</u>
Potential Contaminants Listing	<u>1.5</u>
Protection Measures	<u>1.6</u>
Assessment Analysis	<u>1.7</u>
Site Comments	<u>1.8</u>
Added Site Comments	<u>1.9</u>
Analysis Question Comments	<u>1.10</u>
Assessment Area 354	<u>2.0</u>
Executive Summary	<u>2.1</u>
Potential Sources	<u>2.2</u>
Added Sources	<u>2.3</u>
Potential Contaminants Summary	<u>2.4</u>
Potential Contaminants Listing	<u>2.5</u>
Protection Measures	2.6
Assessment Analysis	<u>2.7</u>
Site Comments	<u>2.8</u>
Added Site Comments	<u>2.9</u>
Analysis Question Comments	2.10
Assessment Area 355	<u>3.0</u>
Executive Summary	<u>3.1</u>
Potential Sources	<u>3.2</u>
Added Sources	3.3
Potential Contaminants Summary	<u>3.4</u>
Potential Contaminants Listing	<u>3.5</u>
Protection Measures	3.6
Assessment Analysis	<u>3.7</u>
Site Comments	3.8
Added Site Comments	<u>3.9</u>
Analysis Ouestion Comments	3.10

Assessment Area 356	<u>4.0</u>
Executive Summary	<u>4.1</u>
Potential Sources	<u>4.2</u>
Added Sources	<u>4.3</u>
Potential Contaminants Summary	<u>4.4</u>
Potential Contaminants Listing	<u>4.5</u>
Protection Measures	<u>4.6</u>
Assessment Analysis	<u>4.7</u>
Site Comments	<u>4.8</u>
Added Site Comments	<u>4.9</u>
Analysis Question Comments	4 10

# **Report Description**

#### **Detailed Explanation of Entire Report:**

The 1996 amendments to the Safe Drinking Water Act require each state to develop a Source Water Assessment Program (SWAP) and a Source Water Assessment (SWA) for each Public Water Supply (PWS) that treats and distributes raw source water. In Kansas there are 761 public water supplies that require SWAs. A SWA includes a delineation of the source water assessment area, an inventory of potential contaminant sources, and a susceptibility analysis.

A PWS can consist of one or more individual assessment areas that require different assessments. In general, an assessment area is delineated at a two-mile fixed radius for a groundwater well. A surface water intake assessment area is the upstream-drainage area (watershed), inside the state border. Additionally, an assessment area can consist of an individual well, group of wells, an individual surface water intake, or multiple surface water intakes.

After each assessment is completed a report is automatically generated using an Internet-based application called the Automated Source Water Assessment Tool (ASWAT). The individual assessment reports combine to form the entire SWA report for a PWS.

A map of each Assessment Area was also generated with ASWAT. However, for security reasons the maps are not included in this report. To obtain a copy of the map(s), please contact your local PWS.

All PWS reports will be available for viewing and downloading on KDHE's Watershed Management Section website(http://www.kdhe.state.ks.us/nps) in 2004.

### **FORT RILEY Summary:**

AA	Туре	Diversion Id
353	Ground water multiple wells	306, 306, 305
354	Ground water multiple wells	001, 003, 005, 004, 006, 009, 007, 008
355	Ground water single well	801
356	Ground water single well	R18

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Executive Summary:**

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

# **Executive Summary**

Public Water Supply: FORT RILEY

Assessment Area: 353

## **Susceptibility Likelihood Scores for Assessment Area**

Contaminant Category	A	В	B*	С	C*	D
Susceptibility Likelihood Score – SLS	16	21	19	20	18	21
SLS Range	Low	Low	Low	Low	Low	Low

A – Microbiolgical

**B\*** – Nitrates

C\* – Pesticides

**B** – Inorganic Compounds

C – Synthetic Organic Compounds

**D** – Volatile Organic Compounds

### Susceptibility Likelihood Range

SLS Range	
0-50	Low Susceptibility
51-80	<b>Moderate Susceptibility</b>
81–100	High Susceptibility

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Potential Sources:**

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100–foot radius around a groundwater well and a 1000–foot radius around a surface water intake. Zone B is a 2000–foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2–mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

### **Potential Sources**

Public Water Supply: **FORT RILEY** Assessment Area: **353** 

#### **Unregulated Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Confined Animal Feeding Operations Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Hazardous Waste Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Leaking Storage Tank Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Identified Contaminated Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

### **Regulated Solid Waste Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Waste Water Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Added Sources:**

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

# **Added Sources**

Public Water Supply: FORT RILEY

Assessment Area: 353

#### **Added Potential Site Sources**

Source No.	Source Name	SIC ID	Zone
9000721	lagoons	10075	В

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Potential Contaminants Summary:**

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# **Potential Contaminants Summary**

Public Water Supply: FORT RILEY

Assessment Area: 353

# **Number of Unregulated Site Sources Identified for each Contaminant Category**

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
0	0	0	0	0	0

A – Microbiolgical

**B\*** – Nitrates

C\* – Pesticides

**B** – Inorganic Compounds

C – Synthetic Organic Compounds

**D** – Volatile Organic Compounds

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Potential Contaminants Listing:**

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiolgical B – Inorganic Compounds
 B2 – Sedimentation B\* – Nitrates
 B1 – Eutrophication – Phosphorous
 C – Synthetic Organic Compounds

**C\*** – Pesticides **D** – Volatile Organic Compounds

# **Potential Contaminants Listing**

Public Water Supply: FORT RILEY

Assessment Area: 353

# **Unregulated Identified Site Sources and associated Potential Contaminant Category**

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
	Did Not	Contain Any Potential Contamina	nts

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Protection Measures:**

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

# **Protection Measures**

Public Water Supply: FORT RILEY

Assessment Area: 353

### **Recommended Water Quality Protection Measures**

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
		No Protection Measu	res Listed	

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Assessment Analysis:**

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

# **Assessment Analysis**

Public Water Supply: FORT RILEY

Assessment Area: 353

#### **Ground Water Multiple Wells Analysis**

A-Microbiolgical B-Inorganic Compounds

 ${f B^*}$  – Nitrates  ${f C}$  – Synthetic Organic Compounds  ${f C^*}$  – Pesticides  ${f D}$  – Volatile Organic Compounds

No.	Question	Response	A	В	<b>B</b> *	C	C*	D
1	Is any well under the influence of surface water?	No	0	0	0	0	0	0
2	Do all PWS wells meet KS PWS water well construction standards?	Yes	0	0	0	0	0	0
3	Is any well less than 30 feet deep?	No	0	0	0	0	0	0
4	Is gravel pack within 20 feet of any well surface?	No	0	0	0	0	0	0
5	Does a PWS own or control all the areas around the wells?	Yes	0	0	0	0	0	0
6	Does Zone B consist entirely of native grass?	No	2	2	2	2	2	2
7	Is there a contaminated well in Zone B?	No	0	0	0	0	0	0
8	Is a class V UIC well present?	No	0	0	0	0	0	0
9	Are any commercial, industrial, or urban areas present in Zone B?	No	0	0	0	0	0	0
10	Does each industrial/commercial site and urban area have a water quality protection plan in place?	Yes	0	0	0	0	0	0
11	Are any non-farm home sites present in Zone B?	No	0	0	0	0	0	0
12	Do all the non-farm home sites have a water quality protection plan?	Yes	0	0	0	0	0	0
13	Are any farmsteads present in Zone B?	No	0	0	0	0	0	0
14	Do all farmsteads have a water quality protection plan?	Yes	0	0	0	0	0	0
15	Is there grazing livestock in Zone B?	No	0	0	0	0	0	0
16	Have all livestock producers implemented water quality protection measures?	Yes	0	0	0	0	0	0
17	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0

No.	Question	Response	A	В	<b>B</b> *	C	C*	D
18	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
19	Is there corn or grain sorghum production in Zone B?	No	0	0	0	0	0	0
20	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
21	Are any orchards present in Zone B?	No	0	0	0	0	0	0
22	Are orchard nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
23	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	Yes	1	1	1	0	0	0
24	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
25	Is there oil production in Zone B or C?	No	0	0	0	0	0	0
26	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
27	Is an irrigation well located in Zone B or C?	No	0	0	0	0	0	0
28	Is a wastewater treatment facility in Zone B or C?	No	0	0	0	0	0	0
29	Is a solid waste landfill in Zone B or C?	No	0	0	0	0	0	0
30	Are there unplugged, abandoned water wells present in Zone C?	No	0	0	0	0	0	0
31	Are any commercial, industrial, or urban area present in Zone C?	No	0	0	0	0	0	0
32	Does each industrial/commercial site and urban area have a water quality protection plan in place?	Yes	0	0	0	0	0	0
33	Is there livestock confinement in Zone C?	No	0	0	0	0	0	0
34	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
35	Do all the livestock producers have water quality protection measures in place?	Yes	0	0	0	0	0	0
36	Are cropland nutrient management plans in place?	No	0	0	1	0	0	0
37	Are cropland pesticide management plans in place?	No	0	0	0	0	1	0
38	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
39	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Site Comments:**

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

# **Site Comments**

	Did Not Receive Any Comments
Comments for R	egulated Confined Animal Feeding Operations Sites
	Did Not Receive Any Comments
Comments for R	egulated Hazardous Waste Sites
	Did Not Receive Any Comments
Comments for R	egulated Leaking Storage Tank Sites  Did Not Receive Any Comments
	egulated Leaking Storage Tank Sites
	egulated Leaking Storage Tank Sites  Did Not Receive Any Comments
Comments for R	egulated Leaking Storage Tank Sites  Did Not Receive Any Comments  egulated Identified Contaminated Sites

# **Comments for Regulated Waste Water Sites**

Did Not Receive Any Comments

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Added Site Comments:**

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

# **Added Site Comments**

Public Water Supply: FORT RILEY

Assessment Area: 353

#### **Comments for Added Contaminant Sites**

Added Contaminant Site Name	Site No.	Site Comments	Author
lagoons	1 900007771		Nicole Fisher

Assessment Area: 353

Diversion Id's: 306, 306, 305 Status: Accepted

Submit Date: 2002–12–13 16:48:12

#### **Analysis Question Comments:**

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

# **Analysis Question Comments**

Public Water Supply: FORT RILEY

Assessment Area: 353

### **Comments for Analysis Questions**

Analysis Question	Question Comments	Author
Did N	Not Receive Any Comments	

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: Accepted

Submit Date: 2002–12–13 16:52:12

#### **Executive Summary:**

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

# **Executive Summary**

Public Water Supply: FORT RILEY

Assessment Area: 354

### **Susceptibility Likelihood Scores for Assessment Area**

Contaminant Category	A	В	B*	С	C*	D
Susceptibility Likelihood Score – SLS	35	42	32	44	33	46
SLS Range	Low	Low	Low	Low	Low	Low

A – Microbiolgical

**B\*** – Nitrates

C\* – Pesticides

**B** – Inorganic Compounds

C – Synthetic Organic Compounds

**D** – Volatile Organic Compounds

### Susceptibility Likelihood Range

SLS Range	
0-50	Low Susceptibility
51-80	<b>Moderate Susceptibility</b>
81–100	High Susceptibility

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: Accepted

Submit Date: 2002–12–13 16:52:12

#### **Potential Sources:**

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100–foot radius around a groundwater well and a 1000–foot radius around a surface water intake. Zone B is a 2000–foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2–mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

# **Potential Sources**

Public Water Supply: FORT RILEY

Assessment Area: 354

#### **Unregulated Potential Site Sources**

Source No.	SIC Description	SIC ID	Zone
138637	Veterinary Services, Specialties	742	С
138794	Single–family Housing Construction	1521	С
138524	Metal Coating and Allied Services Manufacturing	3479	С
138791	Metal Coating and Allied Services Manufacturing	3479	С
138571	Railroad Equipment Manufacturing	3743	С
138566	Mobile Home Park	6515	С
138569	Mobile Home Park	6515	С
138576	Mobile Home Park	6515	С
138636	Mobile Home Park	6515	С
138502	Auto Truck Repair Service	7538	С
138521	Car Wash	7542	С

#### **Regulated Confined Animal Feeding Operations Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Hazardous Waste Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Leaking Storage Tank Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
3000046	Town Country #69	00260	С
3000723	B D Market	07091	С
3000808	Public Wks Dept	08255	С
3001329	Ft Riley, Funston Site#7	23650	С
3001455	Mobile Traveler Induistrial Park	25416	С
3001647	Fina #9474, (woods Mini Mart)	26289	С
3002025	Jim Clark Chevrolet	28162	С
3002342	A-one Taxi Co	29727	С

#### **Regulated Identified Contaminated Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
7000737	MAIN POST LANDFILL (FORMER)	C503100192	С
7000740	FT RILEY – DRY CLEANING FACILITIES	C503103035	С
7000746	FT RILEY – LIVESTOCK DIPPING FACILITY (FORMER)	C503103041	С

### **Regulated Identified Contaminated Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
7000748	FT RILEY – BLDG 354 AREA SOLVENT DETECTIONS	C503170130	С
7000751	CAMP FORSYTH FORMER LANDFILL #1	C503171146	С
7000752	CAMP FORSYTH FORMER LANDFILL #2	C503171147	С
7000753	CAMP FORSYTH FORMER LANDFILL #3	C503171148	С
7000754	CAMP FORSYTH FORMER LANDFILL #4	C503171149	С
7000755	CAMP FORSYTH FORMER LANDFILL #5	C503171150	С
7000756	CAMP FORSYTH SUBSTATION (FORMER)	C503171151	C
7000761	WARE ELEMENTARY SCHOOL	C503171168	С
7000762	BUILDING 319 (FORMER BUILDING 749)	C503171169	С
7000763	KPL LANDING SUBSTATION (FORMER)	C503171170	С
7000764	MULLINS PARK (FORMER)	C503171171	С
7000765	PRINT AND PUBLICATION SHOP	C503171172	С

## **Regulated Solid Waste Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
5000283	Pinkerton Motors, Inc.	0273-S	С
5000614	Itel Rail Corp.	0601-S	С

# **Regulated Waste Water Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
6000518	FT. RILEY (DEPT OF ARMY)	F-KS97-PO01	С

# **Regulated Waste Water Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
6000519	FT. RILEY (DEPT OF ARMY)	F-KS97-PO01	С
6000524	FT. RILEY (DEPT OF ARMY)	F-KS97-PO01	С
6000748	FINA OIL CHEMICAL CO.	I-LR15-PO03	С
6001421	JUNCTION CITY MWTP	M-LR15-OO01	С
6001422	JUNCTION CITY MWTP	M-LR15-OO01	С
6001423	JUNCTION CITY MWTP	M-LR15-OO01	С

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: Accepted

Submit Date: 2002–12–13 16:52:12

#### **Added Sources:**

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

# **Added Sources**

Public Water Supply: FORT RILEY

Assessment Area: 354

#### **Added Potential Site Sources**

Source No.	Source Name	SIC ID	Zone
9000590	Septic System for Jack Jill Daycare	10067	В
9000722	Firing Ranges	10087	В
9000591	Irrigated cornfield	115	В
9000724	print and publications shop	2893	С
9000723	dry cleaning services	7216	С

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: **Accepted** 

Submit Date: 2002–12–13 16:52:12

#### **Potential Contaminants Summary:**

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# **Potential Contaminants Summary**

Public Water Supply: FORT RILEY

Assessment Area: 354

# **Number of Unregulated Site Sources Identified for each Contaminant Category**

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
6	0	10	1	5	5

 $\mathbf{A}-Microbiolgical$ 

**B\*** – Nitrates

C\* – Pesticides

**B** – Inorganic Compounds

C – Synthetic Organic Compounds

**D** – Volatile Organic Compounds

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: Accepted

Submit Date: 2002–12–13 16:52:12

#### **Potential Contaminants Listing:**

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiolgical B – Inorganic Compounds
 B2 – Sedimentation B\* – Nitrates
 B1 – Eutrophication – Phosphorous
 C – Synthetic Organic Compounds

**C\*** – Pesticides **D** – Volatile Organic Compounds

# **Potential Contaminants Listing**

Public Water Supply: FORT RILEY

Assessment Area: 354

# **Unregulated Identified Site Sources and associated Potential Contaminant Category**

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
7538	Auto Truck Repair Service	Inorganics, VOCs	В
"	"	"	D
7542	Car Wash	Inorganics, VOCs	В
"	"	"	B1
"	"	"	B2
"	"	"	D
3479	Metal Coating and Allied Services Manufacturing	inorganics, VOCs	В
"	"	"	D
6515	Mobile Home Park	Sanitary wastes, Fertilizers	A
"	"	"	В
"	"	"	B1
"	"	"	B*
3743	Railroad Equipment Manufacturing	Inorganics, metals, VOCs	В
"	"	"	D
1521	Single–family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1
"	"	"	B2

# **Unregulated Identified Site Sources and associated Potential Contaminant Category.**

SIC ID	SIC Source	Potential Contaminant	<b>Contaminant Category</b>
1521	Single-family Housing Construction	Oil, Paint, Pesticides, Fertilizers	B*
"	"	l'	С
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	A
"	"	"	В

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: Accepted

Submit Date: 2002–12–13 16:52:12

#### **Protection Measures:**

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

## **Protection Measures**

Public Water Supply: FORT RILEY

Assessment Area: 354

## **Recommended Water Quality Protection Measures**

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
7538	Auto Truck Repair Service	Inorganics, VOCs	Discharge to POTW. Manage oil products and used oil so that it is not in contact with water	40 CFR 442 and
7542	Car Wash	Inorganics, VOCs	Install and maintain sediment and grease traps where appropriate	40 CFR 442
3479	Metal Coating and Allied Services Manufacturing	inorganics, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	40 CFR 433 and State or federal Storm water pollution prevention regulations
6515	Mobile Home Park	Sanitary wastes, Fertilizers	Discharge to POTW. Minimize use of lawn chemicals	KAR 28–5
3743	Railroad Equipment Manufacturing	Inorganics, metals, VOCs	Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct	40 CFR 464 and State or federal Storm water pollution prevention regulations
1521	Single–family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28–48, KDHE, KDEM

## **Recommended Water Quality Protection Measures**

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
742	Veterinary Services, Specialties	Sanitary, Inorganics TSS	Discharge to POT	NA

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: Accepted

Submit Date: 2002–12–13 16:52:12

#### **Assessment Analysis:**

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

## **Assessment Analysis**

Public Water Supply: FORT RILEY

Assessment Area: 354

## **Ground Water Multiple Wells Analysis**

A-Microbiolgical B-Inorganic Compounds

B\* – Nitrates
 C – Synthetic Organic Compounds
 C\* – Pesticides
 D – Volatile Organic Compounds

No.	Question	Response	A	В	<b>B</b> *	C	<b>C</b> *	D
1	Is any well under the influence of surface water?	No	0	0	0	0	0	0
2	Do all PWS wells meet KS PWS water well construction standards?	Yes	0	0	0	0	0	0
3	Is any well less than 30 feet deep?	No	0	0	0	0	0	0
4	Is gravel pack within 20 feet of any well surface?	No	0	0	0	0	0	0
5	Does a PWS own or control all the areas around the wells?	Yes	0	0	0	0	0	0
6	Does Zone B consist entirely of native grass?	No	2	2	2	2	2	2
7	Is there a contaminated well in Zone B?	No	0	0	0	0	0	0
8	Is a class V UIC well present?	No	0	0	0	0	0	0
9	Are any commercial, industrial, or urban areas present in Zone B?	No	0	0	0	0	0	0
10	Does each industrial/commercial site and urban area have a water quality protection plan in place?	Yes	0	0	0	0	0	0
11	Are any non-farm home sites present in Zone B?	No	0	0	0	0	0	0
12	Do all the non-farm home sites have a water quality protection plan?	Yes	0	0	0	0	0	0
13	Are any farmsteads present in Zone B?		0	0	0	0	0	0
14	Do all farmsteads have a water quality protection plan?			0	0	0	0	0
15	Is there grazing livestock in Zone B?	No	0	0	0	0	0	0
16	Have all livestock producers implemented water quality protection measures?	Yes	0	0	0	0	0	0
17	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0

No.	Question	Response	A	В	<b>B</b> *	C	C*	D
18	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
19	Is there corn or grain sorghum production in Zone B?	No	0	0	0	0	0	0
20	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
21	Are any orchards present in Zone B?	No	0	0	0	0	0	0
22	Are orchard nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
23	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	Yes	1	1	1	0	0	0
24	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
25	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
26	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
27	Is an irrigation well located in Zone B or C?	No	0	0	0	0	0	0
28	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
29	Is a solid waste landfill in Zone B or C?	Yes	1	1	1	1	1	1
30	Are there unplugged, abandoned water wells present in Zone C?	Yes	2	1	1	1	1	1
31	Are any commercial, industrial, or urban area present in Zone C?	Yes	1	1	1	1	1	1
32	Does each industrial/commercial site and urban area have a water quality protection plan in place?	No	1	1	1	1	1	1
33	Is there livestock confinement in Zone C?	No	0	0	0	0	0	0
34	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
35	Do all the livestock producers have water quality protection measures in place?	Yes	0	0	0	0	0	0
36	Are cropland nutrient management plans in place?	No	0	0	1	0	0	0
37	Are cropland pesticide management plans in place?	No	0	0	0	0	1	0
38	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
39	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: Accepted

Submit Date: 2002–12–13 16:52:12

#### **Site Comments:**

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

## **Site Comments**

Public Water Supply: FORT RILEY

Assessment Area: 354

## **Comments for Unregulated Sites**

Did Not Receive Any Comments

## **Comments for Regulated Confined Animal Feeding Operations Sites**

Did Not Receive Any Comments

## **Comments for Regulated Hazardous Waste Sites**

Did Not Receive Any Comments

## **Comments for Regulated Leaking Storage Tank Sites**

Potential Contaminant Site Name	Site No.	Site Comments	Author
Mobile Traveler Induistrial Park	3001455	Storage tank removed, ground monitoring procedures completed.	Dennis Taggart
Public Wks Dept	3000808	Storage Tanks removed in mid–1990's	Dennis Taggart

## **Comments for Regulated Identified Contaminated Sites**

Did Not Receive Any Comments

## **Comments for Regulated Solid Waste Sites**

Potential Contaminant Site Name	Site No.	Site Comments	Author
Itel Rail Corp.	5000614	TThis industrial solid waste tacility is closed	Nicole Fisher
Pinkerton Motors, Inc.	5000283	As per Christine Mennicke of KDHE: This was a construction materials disposal site until 1984, no activity since then.	Dennis Taggart

## **Comments for Regulated Waste Water Sites**

Potential Contaminant Site Name	Site No.	Site Comments	Author
JUNCTION CITY MWTP	6001421	Location of wastewater plant grounds	Dennis Taggart
JUNCTION CITY MWTP	6001422	Location of wastewater plant discharge point	Dennis Taggart

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: Accepted

Submit Date: **2002–12–13 16:52:12** 

#### **Added Site Comments:**

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

## **Added Site Comments**

Public Water Supply: FORT RILEY

Assessment Area: 354

### **Comments for Added Contaminant Sites**

Added Contaminant Site Name	Site No.	Site Comments	Author
Firing Ranges	9000722	This information was obtained from the Wellhead Protection plan.	Nicole Fisher
Irrigated cornfield	9000591	irrigated cropground has potential for runoff of chemicals or fertilizers	Mike Houck
Septic System for Jack Jill Daycare	9000590	private onsite wastewater system 60 ft west of well	Mike Houck
dry cleaning services	9000723	This information was obtained from the Wellhead Protection plan.	Nicole Fisher
print and publications shop	9000724	This information was obtained from the Wellhead Protection plan.	Nicole Fisher

Assessment Area: 354

Diversion Id's: 001, 003, 005, 004, 006, 009, 007, 008

Status: Accepted

Submit Date: 2002–12–13 16:52:12

#### **Analysis Question Comments:**

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

# **Analysis Question Comments**

Public Water Supply: FORT RILEY

Assessment Area: 354

## **Comments for Analysis Questions**

Analysis Question		Question Comments	Author		
Did Not Receive Any Comments					

Assessment Area: 355
Diversion Id's: 801

Status: Accepted

Submit Date: 2002–12–13 16:54:20

#### **Executive Summary:**

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

## **Executive Summary**

Public Water Supply: FORT RILEY

Assessment Area: 355

## **Susceptibility Likelihood Scores for Assessment Area**

<b>Contaminant Category</b>	A	В	B*	С	C*	D
Susceptibility Likelihood Score – SLS	32	38	29	40	30	42
SLS Range	Low	Low	Low	Low	Low	Low

A – Microbiolgical

**B\*** – Nitrates

C\* – Pesticides

**B** – Inorganic Compounds

C – Synthetic Organic Compounds

**D** – Volatile Organic Compounds

## Susceptibility Likelihood Range

SLS Range	
0-50	Low Susceptibility
51-80	<b>Moderate Susceptibility</b>
81–100	High Susceptibility

Assessment Area: 355
Diversion Id's: 801

Status: **Accepted** 

Submit Date: 2002–12–13 16:54:20

#### **Potential Sources:**

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100–foot radius around a groundwater well and a 1000–foot radius around a surface water intake. Zone B is a 2000–foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2–mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

## **Potential Sources**

Public Water Supply: FORT RILEY

Assessment Area: 355

#### **Unregulated Potential Site Sources**

Source No.	SIC Description	SIC ID	Zone
138667	Animal Specialty Services	752	С
138666	Single-family Housing Construction	1521	С
138579	Pipeline Terminal	4789	С
138605	Refuse Systems	4953	С
138585	Gasoline Service Station	5541	С

### **Regulated Confined Animal Feeding Operations Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

## **Regulated Hazardous Waste Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

## **Regulated Leaking Storage Tank Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
3000734	Texaco, Grandview Plaza	07148	С

## **Regulated Leaking Storage Tank Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
3001329	Ft Riley, Funston Site#7	23650	С

## **Regulated Identified Contaminated Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
7000736	GRANDVIEW PLAZA PWS WELLS #3 #4	C503100019	С
7000737	MAIN POST LANDFILL (FORMER)	C503100192	С
7000740	FT RILEY – DRY CLEANING FACILITIES	C503103035	С
7000743	FT RILEY – FIRE TRAINING AREA (FORMER)	C503103038	С
7000746	FT RILEY – LIVESTOCK DIPPING FACILITY (FORMER)	C503103041	С
7000748	FT RILEY – BLDG 354 AREA SOLVENT DETECTIONS	C503170130	С
7000762	BUILDING 319 (FORMER BUILDING 749)	C503171169	С
7000763	KPL LANDING SUBSTATION (FORMER)	C503171170	С
7000764	MULLINS PARK (FORMER)	C503171171	С
7000765	PRINT AND PUBLICATION SHOP	C503171172	С
7000766	BUILDING 727 FORMER SERVICE PIT	C503171173	С

## **Regulated Solid Waste Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
5000465	Wayne Upham	0448-S	С

## **Regulated Solid Waste Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
5000614	Itel Rail Corp.	0601-S	С

## **Regulated Waste Water Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
6000052	SUNSET MOTEL	C-SH45-OO02	С
6000519	FT. RILEY (DEPT OF ARMY)	F-KS97-PO01	С
6000523	FT. RILEY (DEPT OF ARMY)	F-KS97-PO01	С
6001423	JUNCTION CITY MWTP	M-LR15-OO01	С
6001426	JUNCTION CITY MWTP	M-LR15-OO01	С
6001431	JUNCTION CITY MWTP	M-LR15-OO01	С
6001432	JUNCTION CITY MWTP	M-LR15-OO01	С
6001768	GRANDVIEW PLAZA	M-SH45-DO01	С

Assessment Area: 355
Diversion Id's: 801

Status: **Accepted** 

Submit Date: 2002–12–13 16:54:20

#### **Added Sources:**

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

## **Added Sources**

Public Water Supply: FORT RILEY

Assessment Area: 355

#### **Added Potential Site Sources**

Source No.	Source Name	SIC ID	Zone
9000672	Trailer Court	10067	В
9000726	Former Fire Training Area/ 892	10087	С
9000724	print and publications shop	2893	С
9000723	dry cleaning services	7216	С
9000725	former service pit –Building 727	7538	С

Assessment Area: 355
Diversion Id's: 801

Status: **Accepted** 

Submit Date: 2002–12–13 16:54:20

#### **Potential Contaminants Summary:**

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# **Potential Contaminants Summary**

Public Water Supply: FORT RILEY

Assessment Area: 355

# Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's	SOC's	VOC's	Nitrates
3	1	4	2	3	3

 $\mathbf{A}-Microbiolgical$ 

**B\*** – Nitrates

C\* – Pesticides

**B** – Inorganic Compounds

C – Synthetic Organic Compounds

**D** – Volatile Organic Compounds

Assessment Area: 355
Diversion Id's: 801

Status: Accepted

Submit Date: 2002–12–13 16:54:20

#### **Potential Contaminants Listing:**

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiolgical B – Inorganic Compounds
 B2 – Sedimentation B\* – Nitrates
 B1 – Eutrophication – Phosphorous
 C – Synthetic Organic Compounds

**C\*** – Pesticides **D** – Volatile Organic Compounds

# **Potential Contaminants Listing**

Public Water Supply: FORT RILEY

Assessment Area: 355

# **Unregulated Identified Site Sources and associated Potential Contaminant Category**

SIC ID	SIC Source	Potential Contaminant	<b>Contaminant Category</b>
5541	Gasoline Service Station	Inorganics, VOCs	В
"	"	"	D
4789	Pipeline Terminal	Inorganics, VOCs	В
"	"	"	D
1521	Single–family Housing Construction	Oil, Paint, Pesticides, Fertilizers	A
"	"	"	B1
"	"	"	B2
"	"	"	B*
"	"	"	С
752	Animal Specialty Services	Sanitary, fertilizers	A
"	"	"	В
"	"	"	B1
"	"	"	B2
"	"	"	B*
4953	Refuse Systems	ALL	A
"	"	"	В
11	"	"	B1

# **Unregulated Identified Site Sources and associated Potential Contaminant Category.**

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
4953	Refuse Systems	ALL	B2
"	"	"	B*
"	"	"	С
"	"	"	C*
"	"	"	D

Assessment Area: 355
Diversion Id's: 801

Status: **Accepted** 

Submit Date: 2002–12–13 16:54:20

#### **Protection Measures:**

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

## **Protection Measures**

Public Water Supply: FORT RILEY

Assessment Area: 355

## **Recommended Water Quality Protection Measures**

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority
5541	Gasoline Service Station	Inorganics, VOCs	Maintain area to minimize fuel contamination	NA
4789	Pipeline Terminal	Inorganics, VOCs	Maintain secondary containment for fuel storage and fueling areas. Maintain and inspect. Effect repairs promptly	NA
1521	Single–family Housing Construction	Oil, Paint, Pesticides, Fertilizers	Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers	KAR 28–48, KDHE, KDEM
752	Animal Specialty Services	Sanitary, fertilizers	Collect and treat wastes.	NA
4953	Refuse Systems	ALL	Store wastes properly in order to minimize contact with storm water.	Maintain the lagoon or storage vessel properly. Control storm water run on and runoff to minimize contamination of storm water

Assessment Area: 355
Diversion Id's: 801

Status: Accepted

Submit Date: 2002–12–13 16:54:20

#### **Assessment Analysis:**

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

## **Assessment Analysis**

Public Water Supply: FORT RILEY

Assessment Area: 355

### **Ground Water Single Well Analysis**

 ${\bf A}$  – Microbiolgical  ${\bf B}$  – Inorganic Compounds

B\* – Nitrates
 C – Synthetic Organic Compounds
 C\* – Pesticides
 D – Volatile Organic Compounds

No.	Question		A	В	<b>B</b> *	C	<b>C</b> *	D
1	Is the well under the influence of surface water?	No	0	0	0	0	0	0
2	Does the well meet KS water well construction standards?	Yes	0	0	0	0	0	0
3	Is the depth of the well less than 30 feet?	No	0	0	0	0	0	0
4	Are there unplugged, abandoned water wells present in Zone A?	No	0	0	0	0	0	0
5	Is there gravel pack within 20 feet of the surface?	No	0	0	0	0	0	0
6	Does a PWS own or control Zone A?	Yes	0	0	0	0	0	0
7	Does Zone A consist entirely of native grass?	No	1	1	1	1	1	1
8	Is there a contaminated well in the Zone A?	No	0	0	0	0	0	0
9	Is a class V UIC well present?		0	0	0	0	0	0
10	Are any commercial, industrial, or urban areas present in Zone B?		0	0	0	0	0	0
11	Does each industrial/commercial site and urban area have a water quality protection plan in place?		0	0	0	0	0	0
12	Are any non-farm home sites present in Zone B?		0	0	0	0	0	0
13	Do all the non-farm home sites have a water quality protection plan?	Yes	0	0	0	0	0	0
14	Are any farmsteads present in Zone B?	No	0	0	0	0	0	0
15	Do all farmsteads have a water quality protection plan?		0	0	0	0	0	0
16	Does Zone B consist entirely of native grass?		1	1	1	1	1	1
17	Is there grazing livestock in Zone B?		0	0	0	0	0	0

No.	Question	Response	A	В	<b>B</b> *	C	<b>C</b> *	$ \mathbf{D} $
18	Do all the livestock producers have water quality protection measures in place?	Yes	0	0	0	0	0	0
19	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0
20	Is each confined animal feeding operation registered with KDHE?		0	0	0	0	0	0
21	Is there corn or grain sorghum production in Zone B?	No	0	0	0	0	0	0
22	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
23	Are any orchards present in Zone B?	No	0	0	0	0	0	0
24	Are orchard nutrient and pesticide plans in use for each site?	Yes	0	0	0	0	0	0
25	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	Yes	1	1	1	0	0	0
26	Is there a railroad or major highway in Zone B or C?	Yes	0	1	1	1	1	1
27	Is there oil production in Zone B or C?	Yes	0	1	0	1	0	1
28	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
29	Is an irrigation well located in Zone B or C?	No	0	0	0	0	0	0
30	Is a wastewater treatment facility in Zone B or C?	Yes	1	1	1	1	1	1
31	Is a solid waste landfill in Zone B or C?	Yes	1	1	1	1	1	1
32	Are there unplugged, abandoned water wells present in Zone B or C?	Yes	1	0	0	0	0	0
33	Are any commercial, industrial, or urban areas present in Zone C?	Yes	1	1	1	1	1	1
34	Are water quality protection plans in use for each site/area?	No	1	1	1	1	1	1
35	Is there livestock confinement in Zone C?	No	0	0	0	0	0	0
36	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
37	Do all the livestock producers have water quality protection measures in place?	Yes	0	0	0	0	0	0
38	Are cropland nutrient management plans in place?	No	0	0	1	0	0	0
39	Are cropland pesticide management plans in place?	No	0	0	0	0	1	0
40	Does a perennial stream flow into Zone C?		1	1	1	1	1	1
41	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Assessment Area: 355
Diversion Id's: 801

Status: **Accepted** 

Submit Date: 2002–12–13 16:54:20

#### **Site Comments:**

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

### **Site Comments**

Public Water Supply: FORT RILEY

Assessment Area: 355

#### **Comments for Unregulated Sites**

Did Not Receive Any Comments

#### **Comments for Regulated Confined Animal Feeding Operations Sites**

Did Not Receive Any Comments

#### **Comments for Regulated Hazardous Waste Sites**

Did Not Receive Any Comments

#### **Comments for Regulated Leaking Storage Tank Sites**

Did Not Receive Any Comments

### **Comments for Regulated Identified Contaminated Sites**

Did Not Receive Any Comments

## **Comments for Regulated Solid Waste Sites**

Potential Contaminant Site Name	Site No.	Site Comments	Author
Itel Rail Corp.	5000614	This industrial solid waste tacility is closed	Nicole Fisher

## **Comments for Regulated Waste Water Sites**

Did Not Receive Any Comments

Assessment Area: 355
Diversion Id's: 801

Status: Accepted

Submit Date: 2002–12–13 16:54:20

#### **Added Site Comments:**

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

## **Added Site Comments**

Public Water Supply: FORT RILEY

Assessment Area: 355

#### **Comments for Added Contaminant Sites**

Added Contaminant Site Name	Site No.	Site Comments	Author
Former Fire Training Area/ 892	9000726	This information was obtained from the Wellhead Protection Plan.	Nicole Fisher
Trailer Court	9000672	There are multiple septic systems west of the well site for the trailers and two houses	
dry cleaning services	This information was obtained from the Wellhead Protection plan.		Nicole Fisher
former service pit –Building 727	9000725	This information was obtained from the Wellhead Protection Plan.	
print and publications shop	9000724	This information was obtained from the Wellhead Protection plan.	Nicole Fisher

Assessment Area: 355
Diversion Id's: 801

Status: **Accepted** 

Submit Date: 2002–12–13 16:54:20

#### **Analysis Question Comments:**

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

## **Analysis Question Comments**

Public Water Supply: FORT RILEY

Assessment Area: 355

### **Comments for Analysis Questions**

Analysis Question	Question Comments	Author
Did Not Receive Any Comments		

Assessment Area: 356
Diversion Id's: R18

Status: **Accepted** 

Submit Date: 2002–12–13 16:58:00

#### **Executive Summary:**

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication – phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi-quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

## **Executive Summary**

Public Water Supply: FORT RILEY

Assessment Area: 356

### **Susceptibility Likelihood Scores for Assessment Area**

<b>Contaminant Category</b>	A	В	B*	С	C*	D
Susceptibility Likelihood Score – SLS	16	14	14	16	15	17
SLS Range	Low	Low	Low	Low	Low	Low

A – Microbiolgical

**B\*** – Nitrates

C\* – Pesticides

**B** – Inorganic Compounds

C – Synthetic Organic Compounds

**D** – Volatile Organic Compounds

### **Susceptibility Likelihood Range**

SLS Range	
0-50	Low Susceptibility
51-80	<b>Moderate Susceptibility</b>
81–100	High Susceptibility

Assessment Area: 356
Diversion Id's: R18

Status: **Accepted** 

Submit Date: 2002–12–13 16:58:00

#### **Potential Sources:**

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a 100–foot radius around a groundwater well and a 1000–foot radius around a surface water intake. Zone B is a 2000–foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2–mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

### **Potential Sources**

Public Water Supply: **FORT RILEY** Assessment Area: **356** 

#### **Unregulated Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Confined Animal Feeding Operations Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Hazardous Waste Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

#### **Regulated Leaking Storage Tank Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

### **Regulated Identified Contaminated Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources

## **Regulated Solid Waste Potential Site Sources**

Source No.	Source Name	ID/Permit No.	Zone
5000663	Bayer Construction Co., Inc.	0651-S	С
5000704	Berwind Railway Service Co.	0683-S	С
5000815	US Army, Div. of Envr. Safety	0787-S	С

## **Regulated Waste Water Potential Site Sources**

Did Not Contain Any Of These Potential Site Sources	
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Assessment Area: 356
Diversion Id's: R18

Status: **Accepted** 

Submit Date: 2002–12–13 16:58:00

#### **Added Sources:**

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.

## **Added Sources**

Public Water Supply: FORT RILEY

Assessment Area: 356

#### **Added Potential Site Sources**

Source No.	Source Name	SIC ID	Zone
9000727	range land	10087	В

Assessment Area: 356
Diversion Id's: R18

Status: Accepted

Submit Date: 2002–12–13 16:58:00

#### **Potential Contaminants Summary:**

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

## **Potential Contaminants Summary**

Public Water Supply: FORT RILEY

Assessment Area: 356

# Number of Unregulated Site Sources Identified for each Contaminant Category

MicroBiological	Pesticides	IOC's SOC's		VOC's	Nitrates	
0	0	0	0	0	0	

 $\mathbf{A}-Microbiolgical$ 

**B\*** – Nitrates

C\* – Pesticides

**B** – Inorganic Compounds

C – Synthetic Organic Compounds

**D** – Volatile Organic Compounds

Assessment Area: 356
Diversion Id's: R18

Status: **Accepted** 

Submit Date: 2002–12–13 16:58:00

#### **Potential Contaminants Listing:**

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

A – Microbiolgical B – Inorganic Compounds
 B2 – Sedimentation B\* – Nitrates
 B1 – Eutrophication – Phosphorous
 C – Synthetic Organic Compounds

**C\*** – Pesticides **D** – Volatile Organic Compounds

## **Potential Contaminants Listing**

Public Water Supply: FORT RILEY

Assessment Area: 356

# **Unregulated Identified Site Sources and associated Potential Contaminant Category**

SIC ID	SIC Source	Potential Contaminant	Contaminant Category
	Did Not	Contain Any Potential Contamina	nts

Assessment Area: 356
Diversion Id's: R18

Status: Accepted

Submit Date: 2002–12–13 16:58:00

#### **Protection Measures:**

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

## **Protection Measures**

Public Water Supply: FORT RILEY

Assessment Area: 356

### **Recommended Water Quality Protection Measures**

SIC	SIC Source	Contaminant Source	Water Quality Protection Measure	Regulatory Authority		
	No Protection Measures Listed					

Assessment Area: 356
Diversion Id's: R18

Status: Accepted

Submit Date: 2002–12–13 16:58:00

#### **Assessment Analysis:**

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

## **Assessment Analysis**

Public Water Supply: FORT RILEY

Assessment Area: 356

#### **Ground Water Single Well Analysis**

 ${\bf A}$  – Microbiolgical  ${\bf B}$  – Inorganic Compounds

B\* – Nitrates
 C – Synthetic Organic Compounds
 C\* – Pesticides
 D – Volatile Organic Compounds

No.	Question	Response	A	В	<b>B</b> *	C	C*	D
1	Is the well under the influence of surface water?			0	0	0	0	0
2	Does the well meet KS water well construction standards?	Yes	0	0	0	0	0	0
3	Is the depth of the well less than 30 feet?	No	0	0	0	0	0	0
4	Are there unplugged, abandoned water wells present in Zone A?	No	0	0	0	0	0	0
5	Is there gravel pack within 20 feet of the surface?	No	0	0	0	0	0	0
6	Does a PWS own or control Zone A?	Yes	0	0	0	0	0	0
7	Does Zone A consist entirely of native grass?	Yes	0	0	0	0	0	0
8	Is there a contaminated well in the Zone A?		0	0	0	0	0	0
9	Is a class V UIC well present?		0	0	0	0	0	0
10	Are any commercial, industrial, or urban areas present in Zone B?		0	0	0	0	0	0
11	Does each industrial/commercial site and urban area have a water quality protection plan in place?		0	0	0	0	0	0
12	Are any non-farm home sites present in Zone B?	No	0	0	0	0	0	0
13	Do all the non-farm home sites have a water quality protection plan?	Yes	0	0	0	0	0	0
14	Are any farmsteads present in Zone B?		0	0	0	0	0	0
15	Do all farmsteads have a water quality protection plan?		0	0	0	0	0	0
16	Does Zone B consist entirely of native grass?		1	1	1	1	1	1
17	Is there grazing livestock in Zone B?	No	0	0	0	0	0	0

No.	Question	Response	A	В	<b>B</b> *	C	<b>C</b> *	$ \mathbf{D} $
18	Do all the livestock producers have water quality protection measures in place?			0	0	0	0	0
19	Is there livestock confinement in Zone B?	No	0	0	0	0	0	0
20	Is each confined animal feeding operation registered with KDHE?	Yes	0	0	0	0	0	0
21	Is there corn or grain sorghum production in Zone B?	No	0	0	0	0	0	0
22	Are corn/grain sorghum nutrient and pesticide management plans in use for each site?	Yes	0	0	0	0	0	0
23	Are any orchards present in Zone B?	No	0	0	0	0	0	0
24	Are orchard nutrient and pesticide plans in use for each site?	Yes	0	0	0	0	0	0
25	Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B?	No	0	0	0	0	0	0
26	Is there a railroad or major highway in Zone B or C?	No	0	0	0	0	0	0
27	Is there oil production in Zone B or C?	No	0	0	0	0	0	0
28	Do coarse textured soils predominate Zones A, B and C?	No	0	0	0	0	0	0
29	Is an irrigation well located in Zone B or C?	No	0	0	0	0	0	0
30	Is a wastewater treatment facility in Zone B or C?	No	0	0	0	0	0	0
31	Is a solid waste landfill in Zone B or C?	Yes	1	1	1	1	1	1
32	Are there unplugged, abandoned water wells present in Zone B or C?	Yes	1	0	0	0	0	0
33	Are any commercial, industrial, or urban areas present in Zone C?	No	0	0	0	0	0	0
34	Are water quality protection plans in use for each site/area?	Yes	0	0	0	0	0	0
35	Is there livestock confinement in Zone C?	No	0	0	0	0	0	0
36	Is each confined livestock facility registered with KDHE?	Yes	0	0	0	0	0	0
37	Do all the livestock producers have water quality protection measures in place?	Yes	0	0	0	0	0	0
38	Are cropland nutrient management plans in place?	No	0	0	1	0	0	0
39	Are cropland pesticide management plans in place?	No	0	0	0	0	1	0
40	Does a perennial stream flow into Zone C?	Yes	1	1	1	1	1	1
41	Are watershed water quality protection plans in place?	No	1	1	1	1	1	1

Assessment Area: 356
Diversion Id's: R18

Status: **Accepted** 

Submit Date: 2002–12–13 16:58:00

#### **Site Comments:**

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

## **Site Comments**

	Did Not Receive Any Comments
Comments for R	egulated Confined Animal Feeding Operations Sites
	Did Not Receive Any Comments
Comments for R	egulated Hazardous Waste Sites
	Did Not Receive Any Comments
Comments for R	egulated Leaking Storage Tank Sites  Did Not Receive Any Comments
	Did Not Receive Any Comments
	Did Not Receive Any Comments  egulated Identified Contaminated Sites
Comments for R	Did Not Receive Any Comments  egulated Identified Contaminated Sites

## **Comments for Regulated Waste Water Sites**

Did Not Receive Any Comments

Assessment Area: 356
Diversion Id's: R18

Status: Accepted

Submit Date: 2002–12–13 16:58:00

#### **Added Site Comments:**

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

## **Added Site Comments**

Public Water Supply: FORT RILEY

Assessment Area: 356

#### **Comments for Added Contaminant Sites**

Added Contaminant Site Name	Site No.	Site Comments	Author
range land	9000727		Nicole Fisher

Assessment Area: 356
Diversion Id's: R18

Status: Accepted

Submit Date: 2002–12–13 16:58:00

#### **Analysis Question Comments:**

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

## **Analysis Question Comments**

Public Water Supply: FORT RILEY

Assessment Area: 356

### **Comments for Analysis Questions**

Analy	ysis Question	Question Comments	Author					
Did Not Receive Any Comments								